Remarks

In the application, claims 23 through 28 are pending. No claims currently stand allowed.

The Office Action dated January 5, 2005, has been carefully considered. The Office Action rejects claims 23, 25, 26, and 28 under 35 U.S.C. § 103(a) as obvious in light of U.S. Patents 6,058,389 ("Chandra") and 6,094,694 ("Hickson"). Claims 23 through 27 are rejected as obvious in light of Chandra, Hickson, and U.S. Patent 6,282,565 ("Shaw").

In the cited art, message handling on senders and on receivers is performed by complicated databases (see especially Chandra, *passim*). Much of this complexity comes from efforts to guarantee that transactional messages are processed *exactly once* and *in a particular order* (Chandra, column 10, line 45, through column 11, line 9). The methods of the presently pending claims also guarantee that messages are processed exactly once, but these claims are simpler than the cited art because the claims give up the notion of guaranteeing a particular order of message processing (see the present specification, page 2, lines 8 through 13, and page 3, lines 17 through 18). However, in order to keep track of messages when they can come in any order, the presently pending claims add an expiration time to each message. A scavenger thread running on each of the receiver and the sender keeps message handling up to date by deleting messages upon their expiration.

The scavenger threads work off the expiration time associated with each message. While the Office Action is correct in saying that Hickson discusses an expiration time, in Hickson that time is assigned by the *receiver*. In the present invention, on the other hand, the time is assigned by the *sender* and sent with the message. Hickson says:

> The expiration data for a particular message includes (in the IBM MQSeries product) a 64-bit field for indicating, with a granularity of 1 millisecond, exactly when this message was placed in the queue (i.e., *when the message was received over the network*) . . . .

Column 2, lines 22 through 26 (emphasis added). Compare this with pending claim 23:

Claim 23:   A method for a *sender* to guarantee an exactly once delivery of a

message to a receiver, the method comprising:

associating an expiration time with the message;

. . . .

sending to the receiver the message in association with the

expiration time and with the identifier;

(Emphasis added.) Claim 25 includes similar language, and claims 26 and 28 show the other side of the transaction, *with the receiver receiving the expiration time along with the message*. With the sender setting the expiration time rather than the receiver, the present invention gives the creator of the message greater control over the message's disposition. As these elements are neither anticipated by, nor rendered obvious in light of, the cited art, these claims are patentable over the cited art.

As all other currently pending claims depend from these claims, applicants request that the rejections be withdrawn and that all currently pending claims be allowed.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersign attorney.

Respectfully submitted,

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